Modeling Regulatory Impacts on Supply Chains

MIT Supply Chain MANAGEMENT

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MIT GLOBAL SCALE NETWORK

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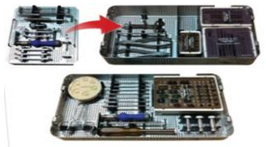
Motivation / Background

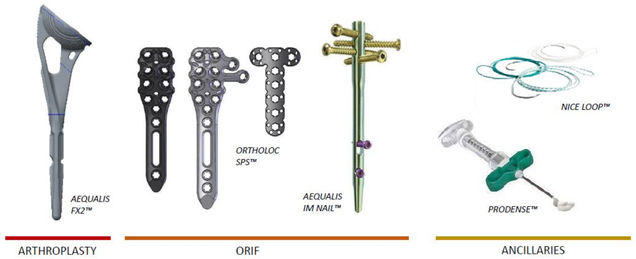
- Increasing regulatory requirements
- Growing manufacturing complexity
- More data

Key Question / Hypothesis

How do you assess the impact of changing regulations?



When do you react?

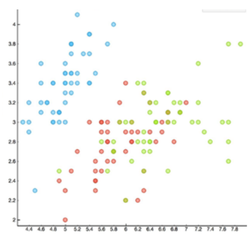


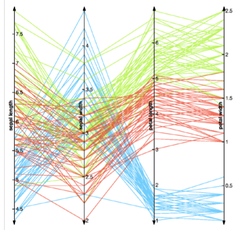
Methodology

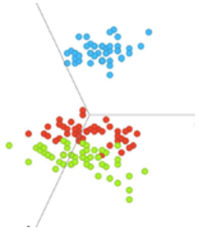
Modeling with Machine Learning

Leveraging statistical algorithms to:

- Identify patterns humans can't see
- Find relationships between variables
- Model and predict unknown impacts







Initial Results

Regulation, lead-times, service level, and operational complexity are interrelated

Modeling impacts enables firms to strategically react

Expected Contribution

- Provide insights about the impacts of regulatory changes using data
- Analytical framework for modeling regulatory changes in the supply chain

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